Enterprise PI System Deployment: Rapidly adopting Asset Framework

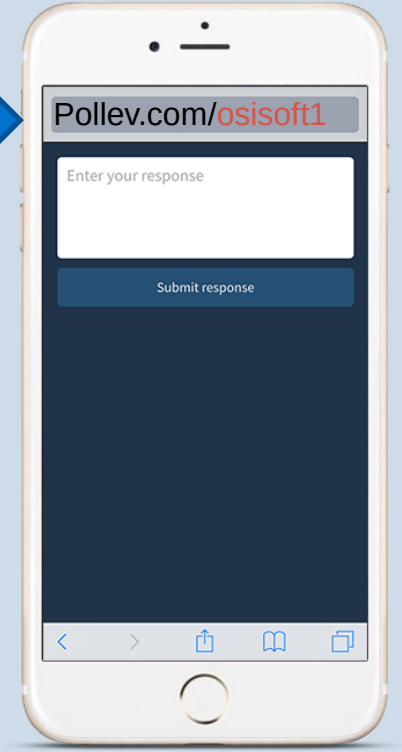
Presented by Husain Al-Shaikh – Systems Engineer
Chris Coen – Product Manager
Tom LeBay – Product Manager

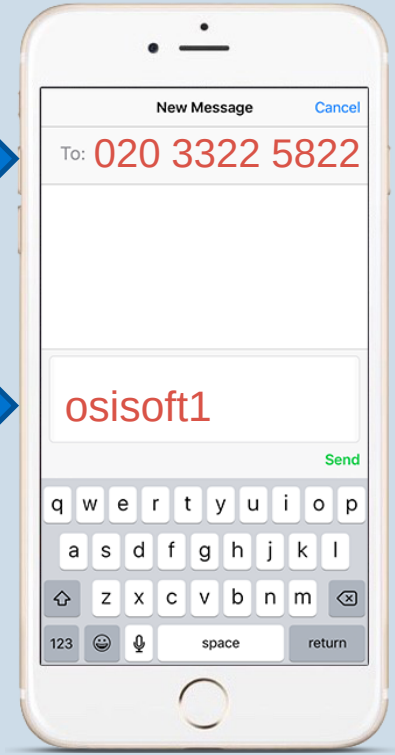
Agenda

- PI Asset Based Example Kits
- Transformation of AF models
- Your response to Asset Based systems

Responding to Poll

Web voting





Text voting

How heavy is the "Big Ben" bell?

5 ton

7 ton

10 ton

12 ton

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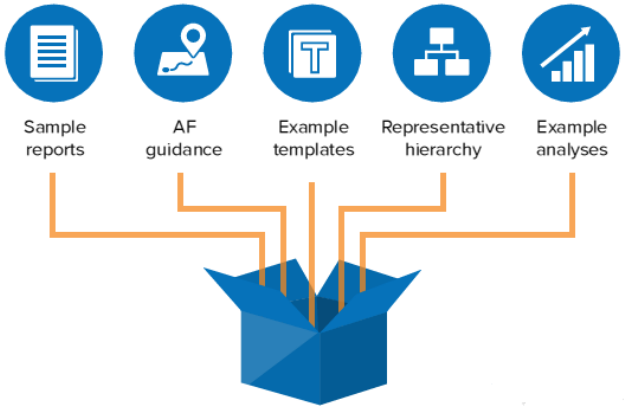
PI Asset Based Example Kits

- What is an Example Kit?
- Why should I use it?
- Where can I find it?
- How to use it?

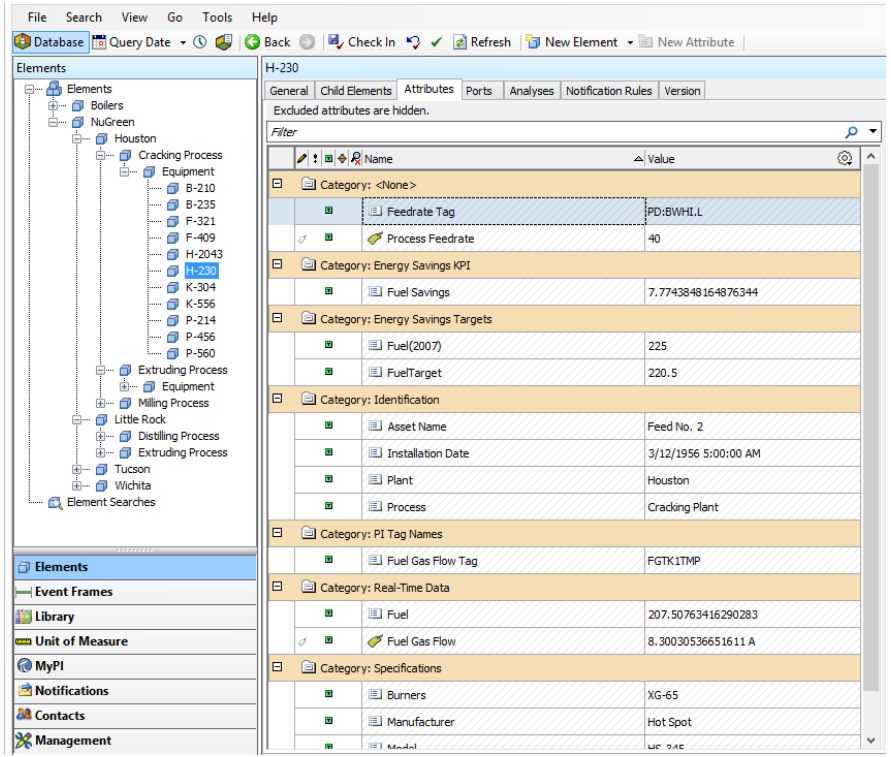


An example kit is a learning tool and a starting point for AF.

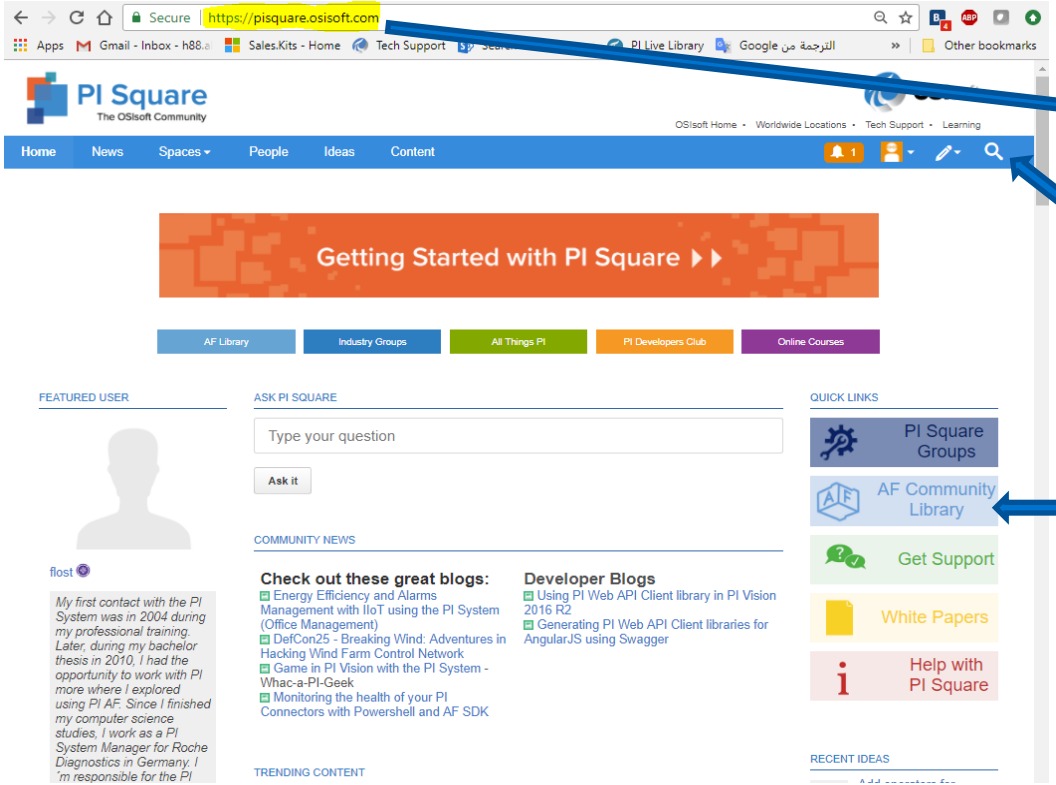
- Focus is on **solving a business problem** with AF
- Broadly applicable to **one or more industries**
- **Simple implementation** of common uses of AF

Asset Based Example Kits VISION

The goal of the AF Community Library is to *encourage* and *empower* members of the OSIsoft community *to explore, share, and collaborate* on tools and ideas for *solving business problems with asset-based PI*.



Easy Access to Asset Based Example Kits from PI Square



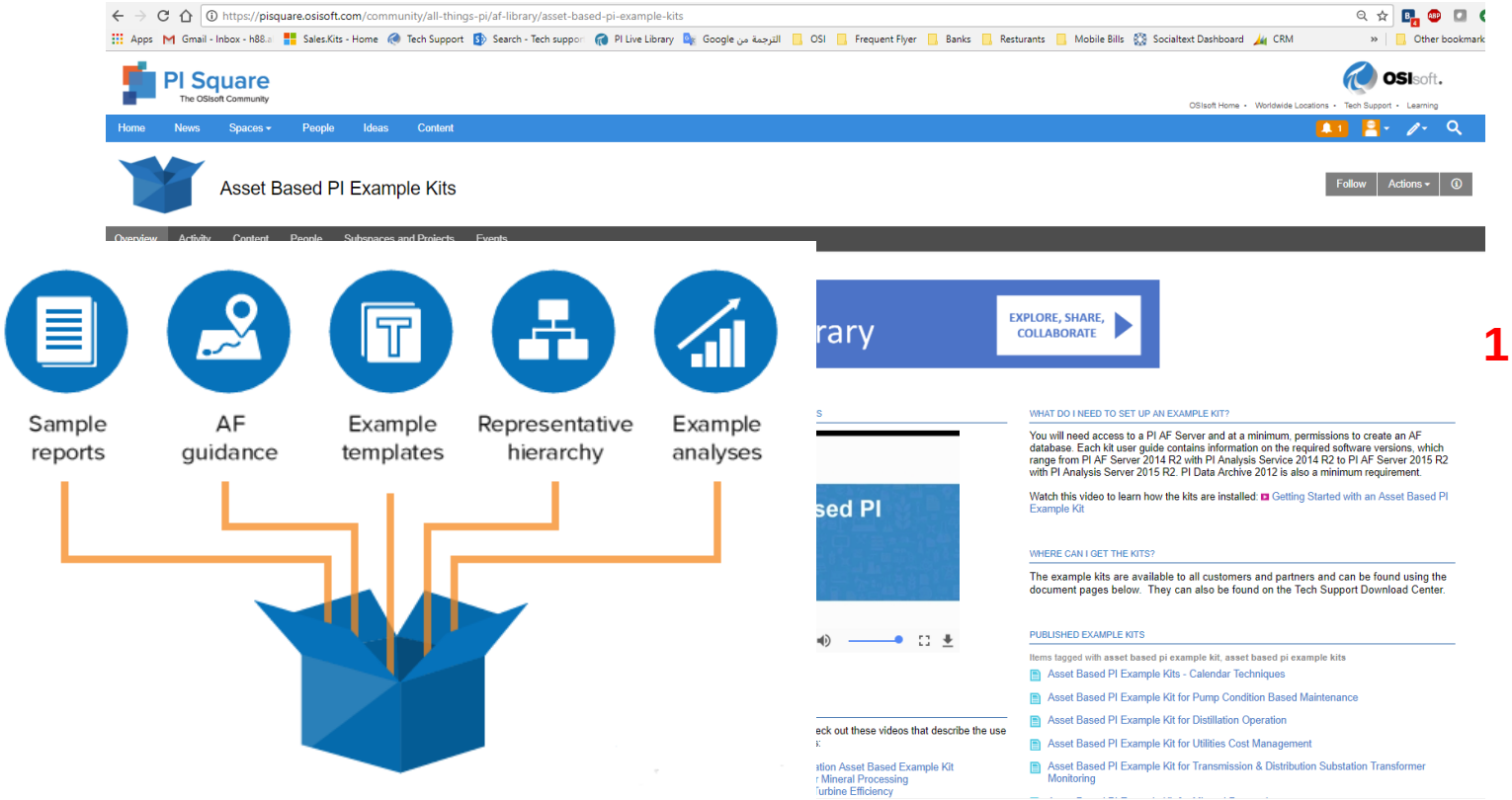
1. https://pisquare.osisoft.com

Or you can just search for asset based example kits

2. Click here and select Subspaces and Projects

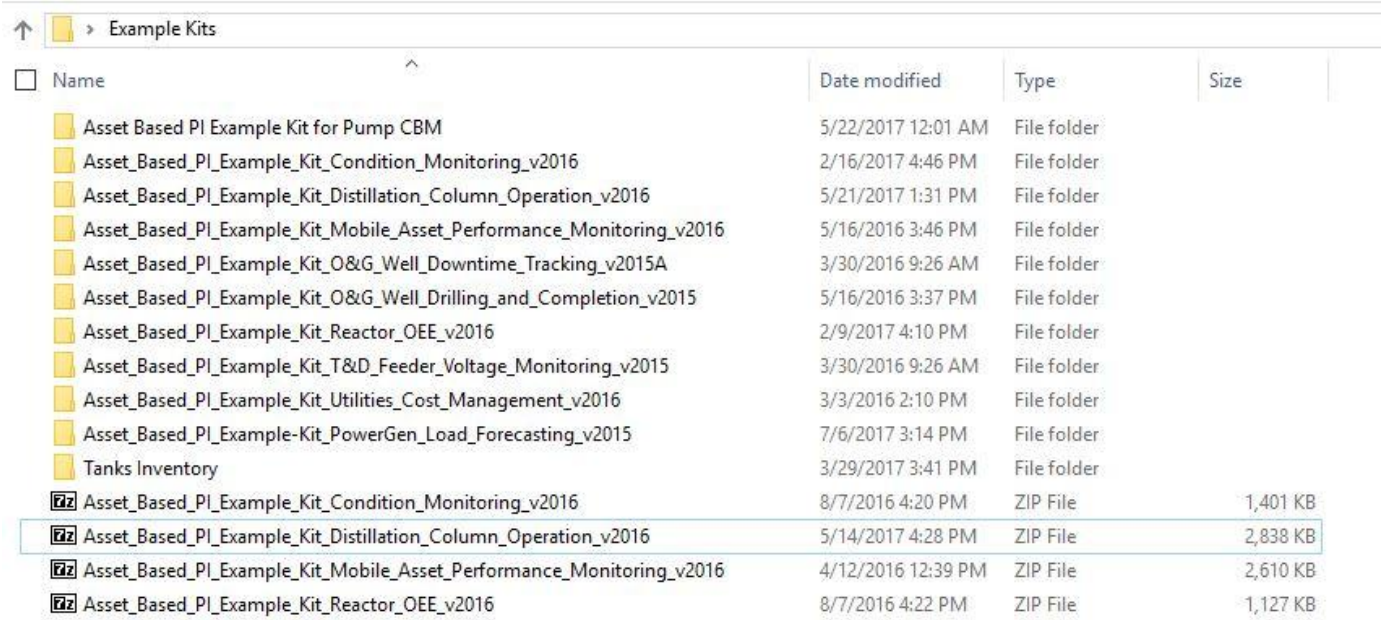
3. Click on the Asset Based PI Example Kits

Each kit is coming with guide files & video



1. Download

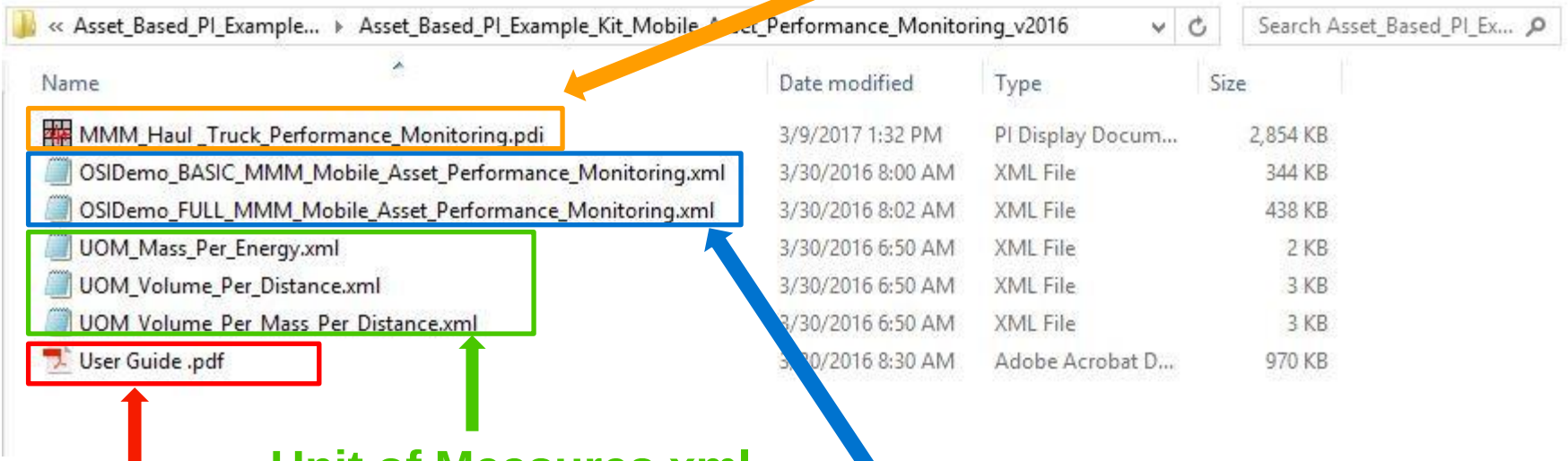
Straight Forward Procedure



2. Extract

Each Example Kit has a User Guide File

ProcessBook Display.pdi

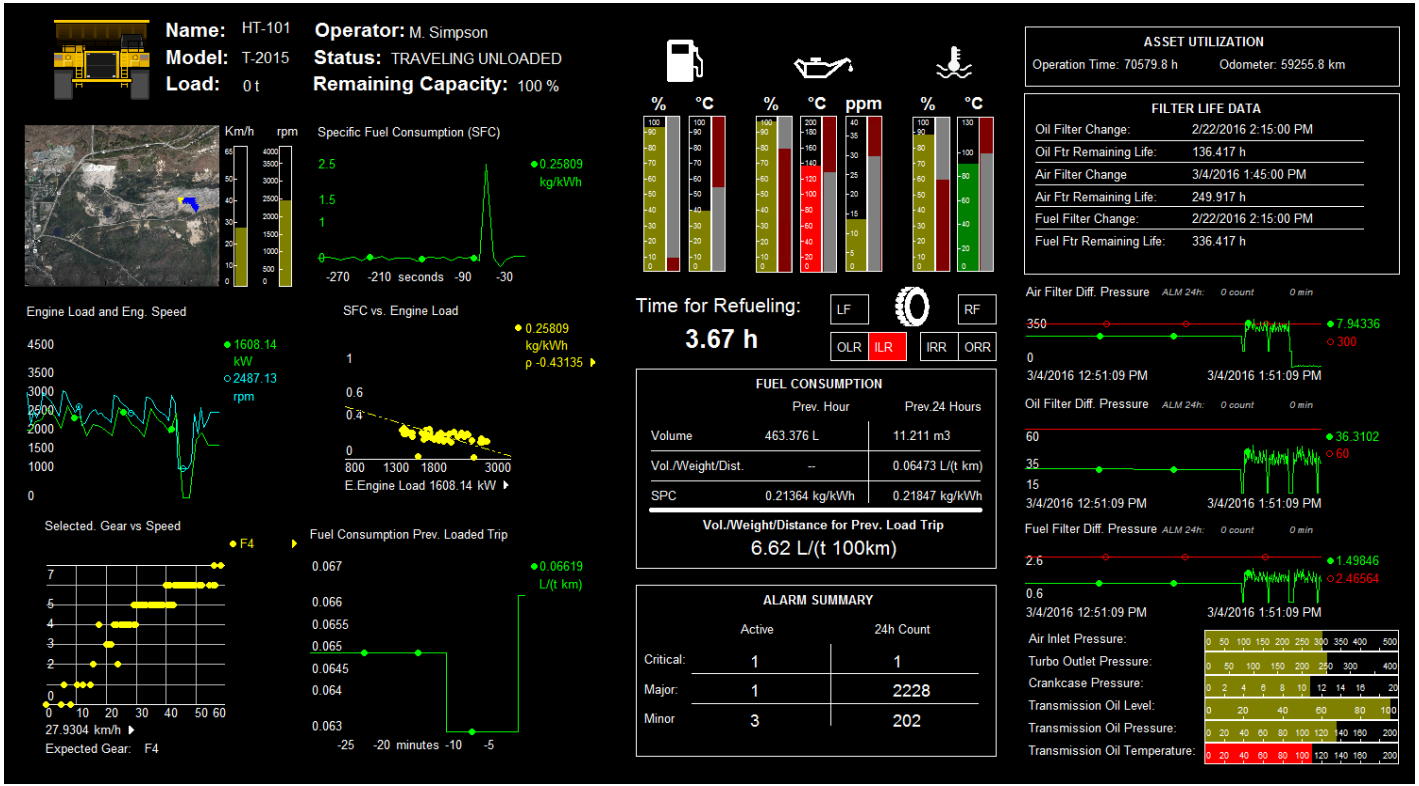


Unit of Measures.xml

User Guide.pdf

DataBase.xml

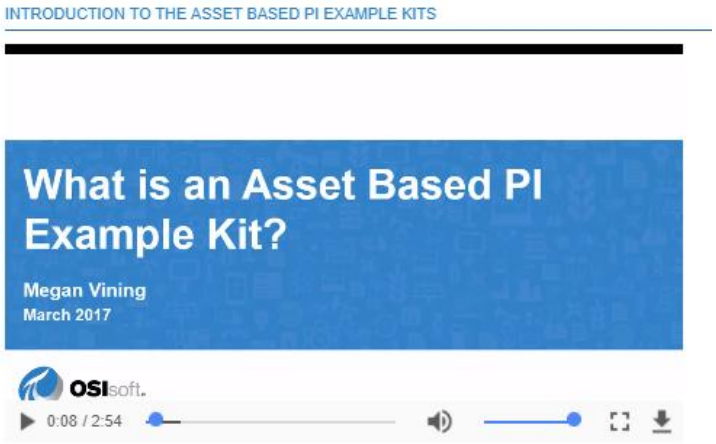
ProcessBook Display from an Example Kit



PI Square
The OSIsoft Community

Video for Each Kit

https://pisquare.osisoft.com



use case,

Kit

Examples Kits download are increasing rapidly

Asset Based PI Example Kits

Number of Downloads

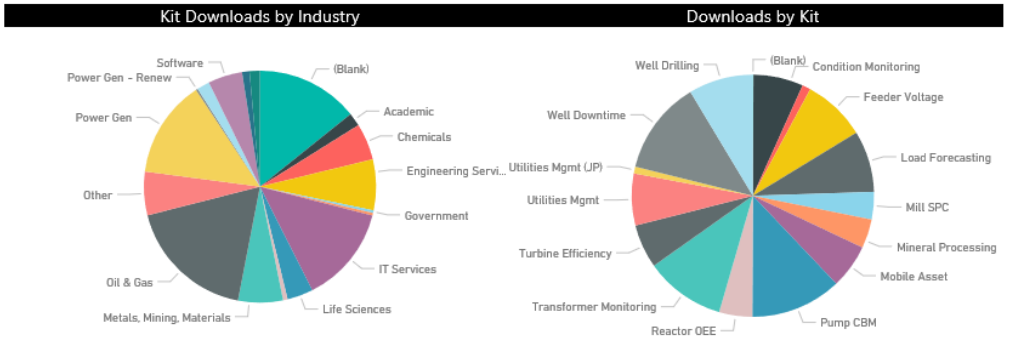
5179

Last Update

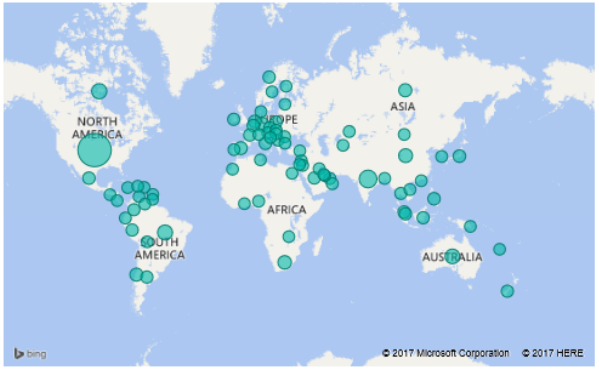
April 17, 2017

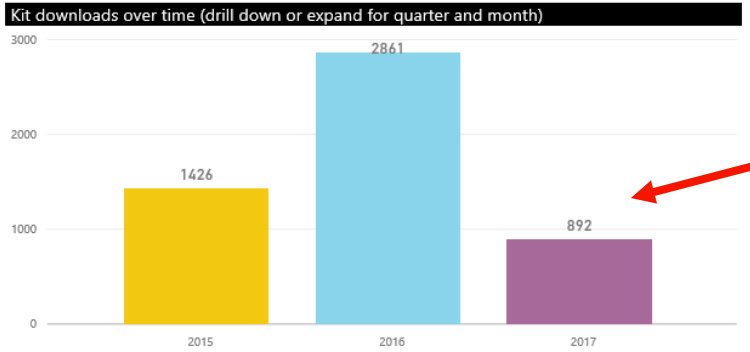
Is OSIsoft employee?

- No
- Yes



Kit Downloads by Country





April 2017

Examples Kits download are increasing rapidly

Asset Based PI Example Kits

Number of Downloads

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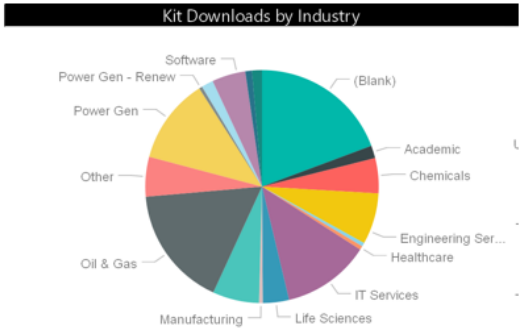
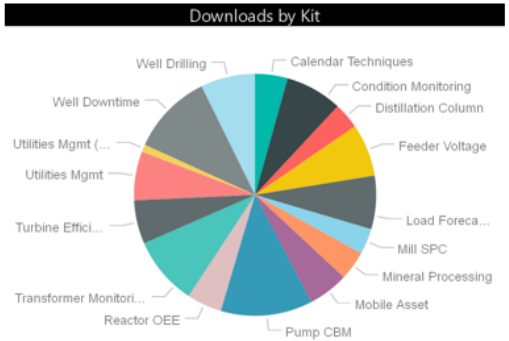
Last Update

September 25, …

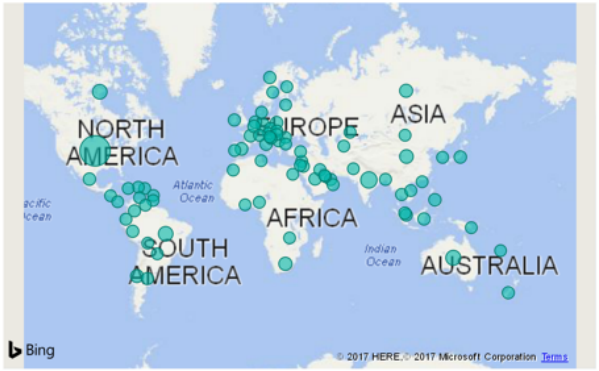
Is OSIsoft employee?

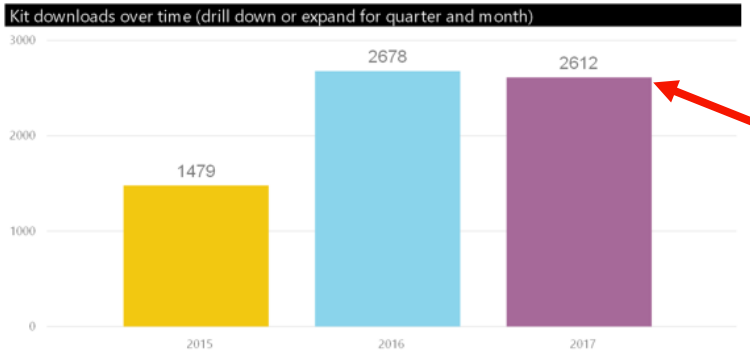
- No
- Yes





Kit Downloads by Country

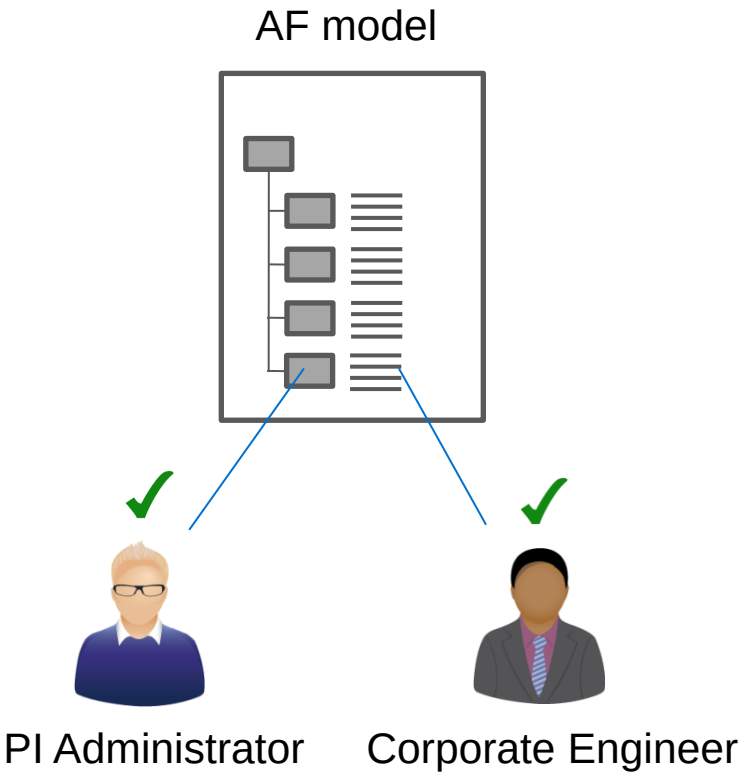




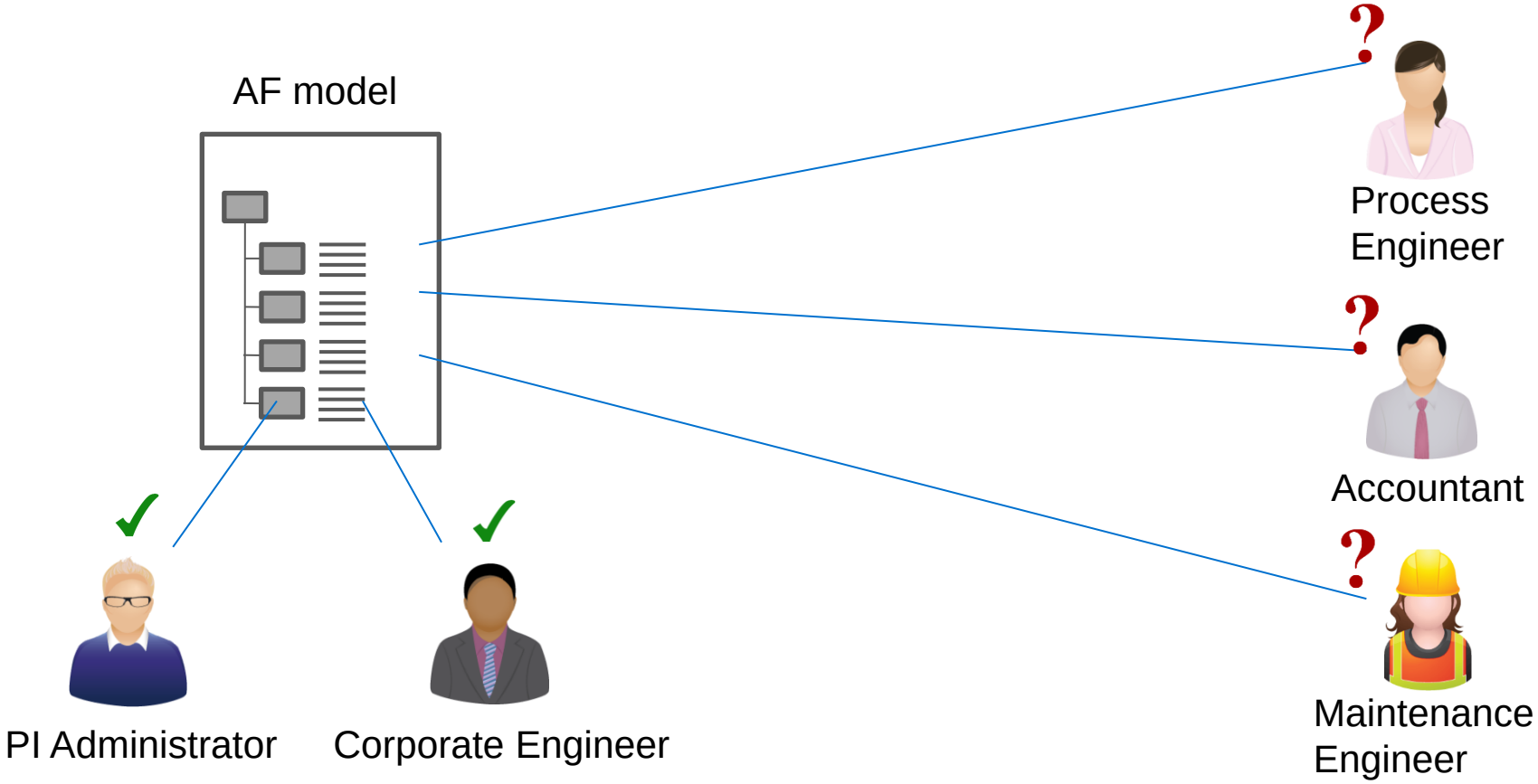
Sep 2017

Transform AF models

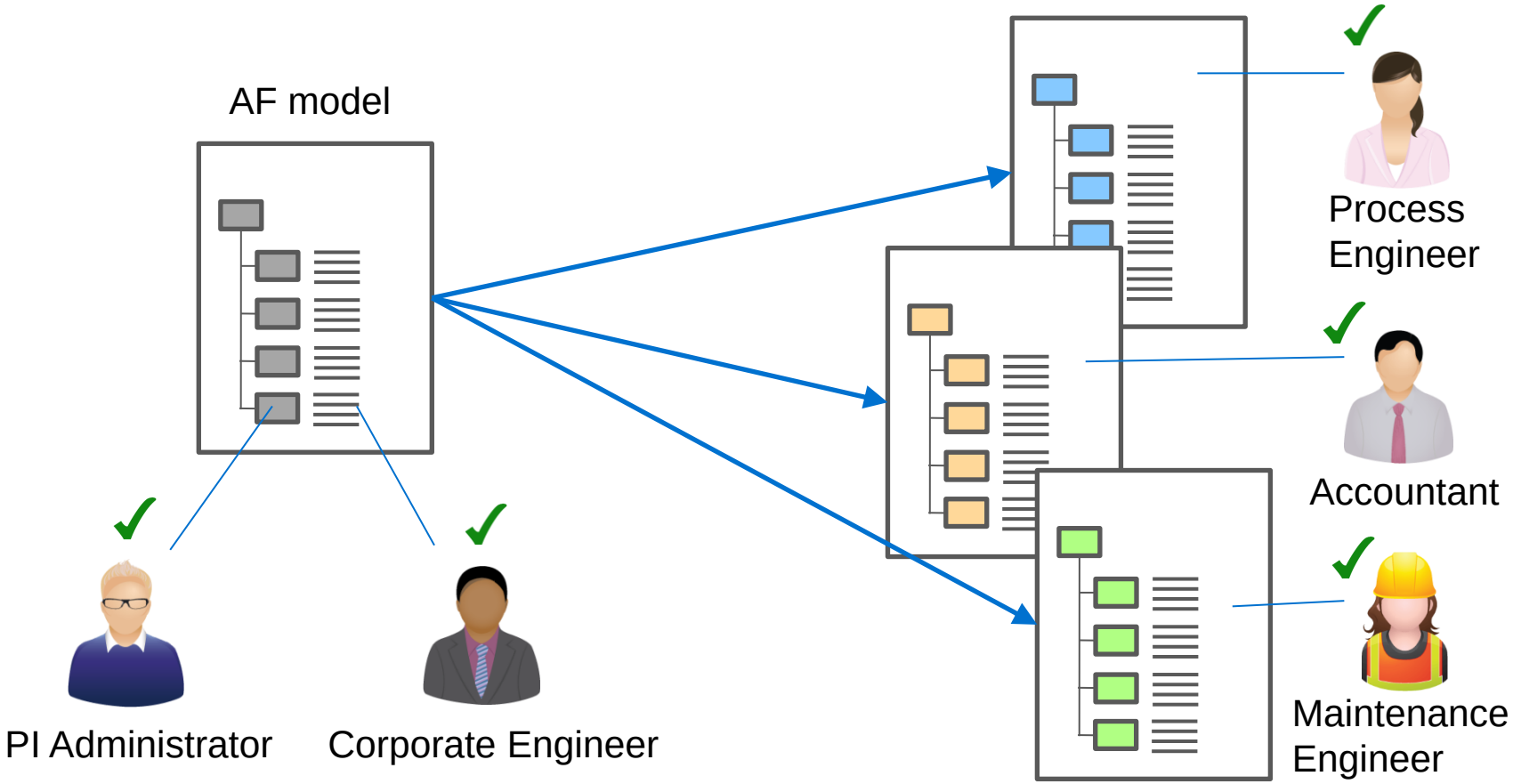
First AF model satisfies a need



Other users may have different needs



AF model can be transformed into other models



Introducing AF Transformer

- Transforms source AF model into one or more destination models
  - Searches for data in source AF via a shape
  - Specify output shape
  - Write data to destination AF

- Configuration via XML scripting. Best suited for technical or development role

Example: Electrical Distribution

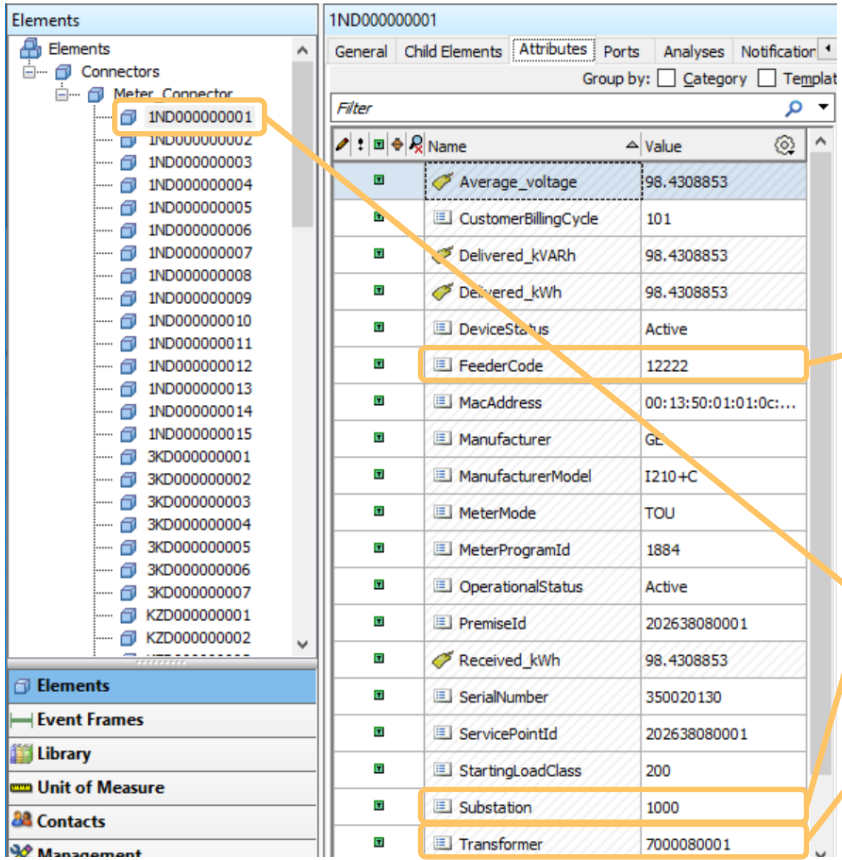
Substations

Feeders

Transformers

Meters

AF reference model for meters



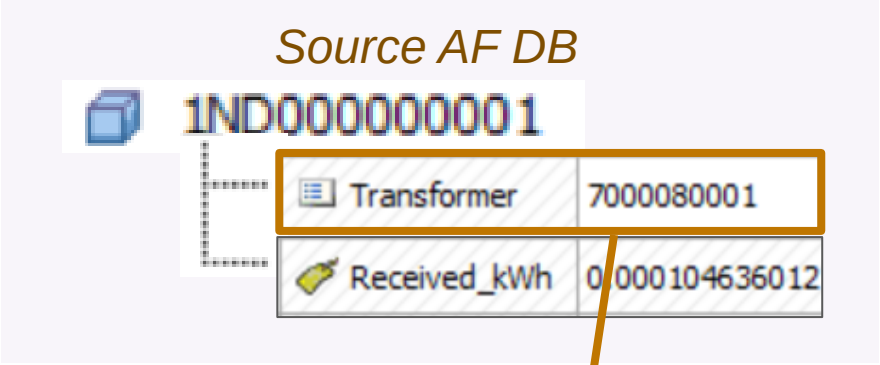
Substation

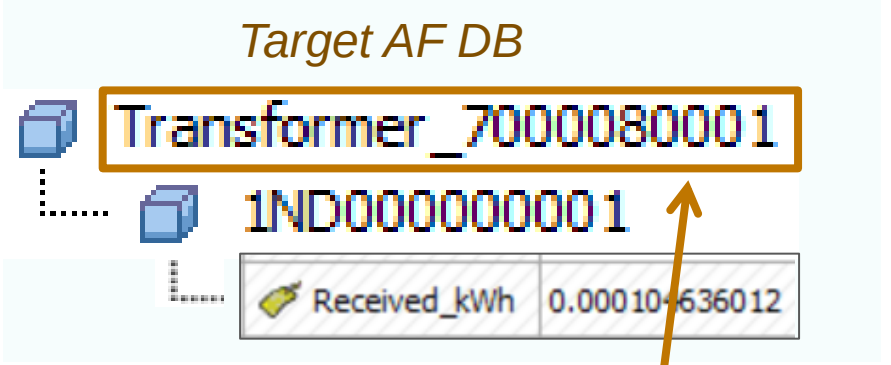
FeederCode

Transformer

Meter

Transform AF models using XML script





AF Transformer configuration

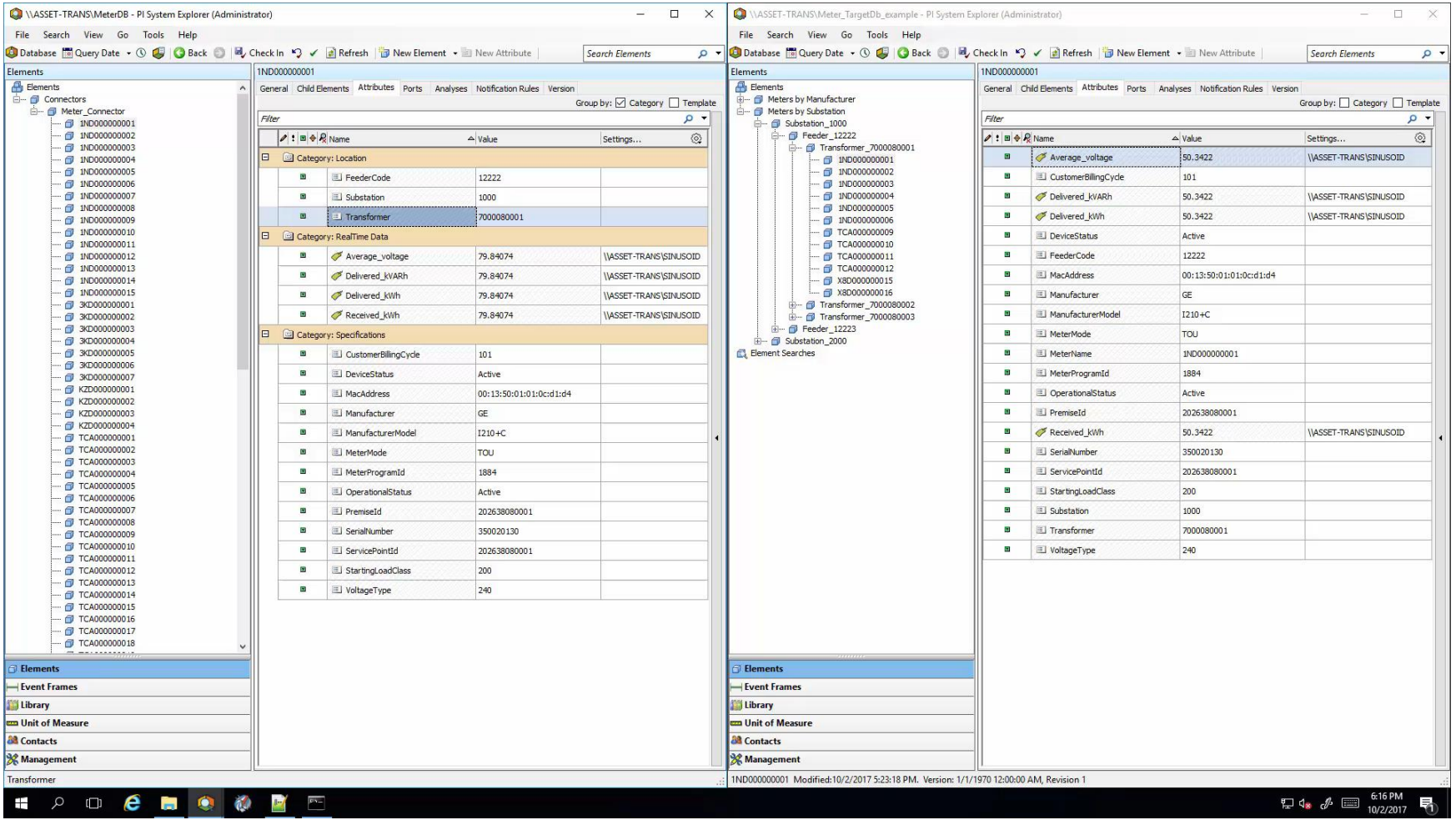
Search Shape

```
<ShapeAttribute ID="11"
...
  <AttributeFilter
        Name="Transformer"/>
```

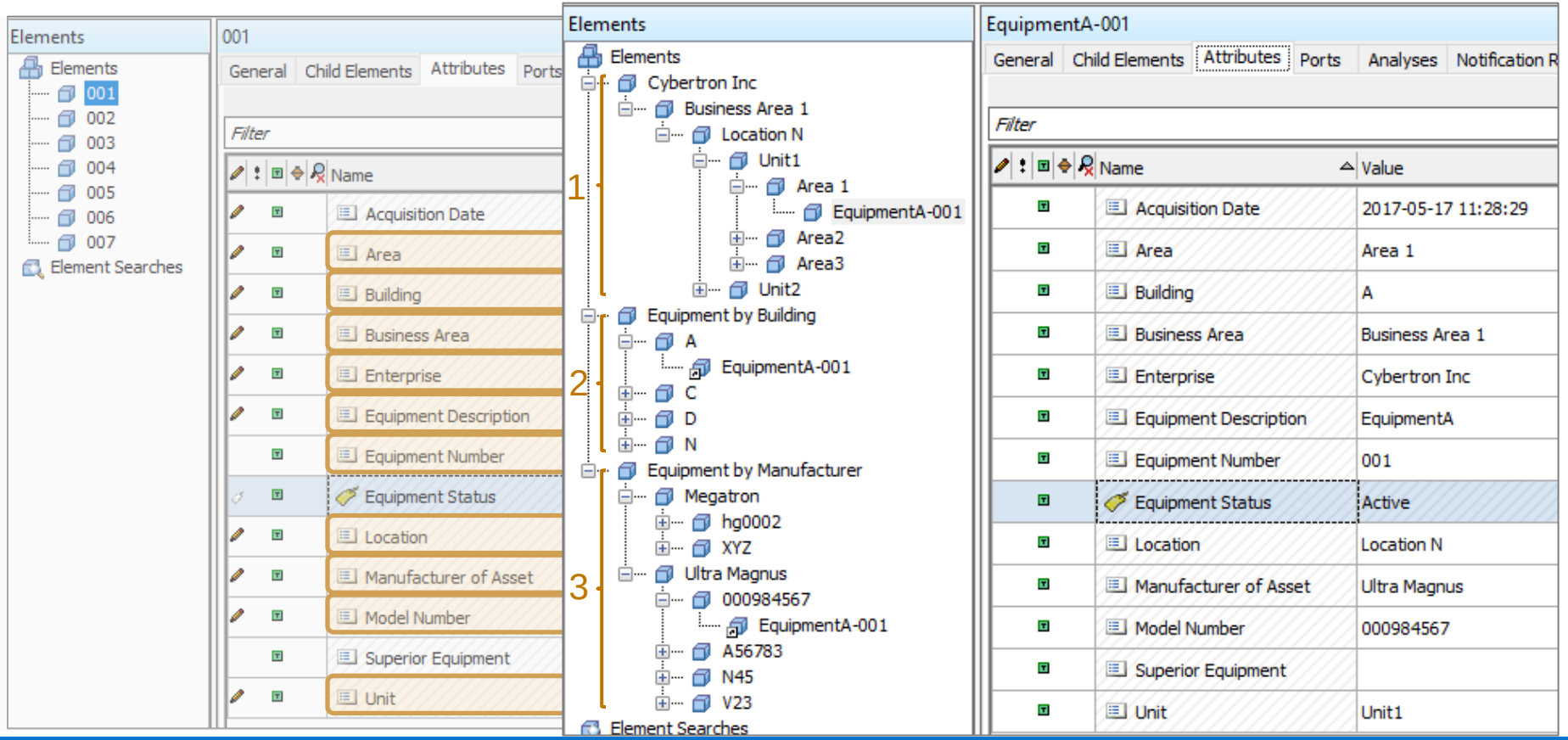
Output Shape

```
...
<Element Name="Transformer_[11.Value]">
...
```

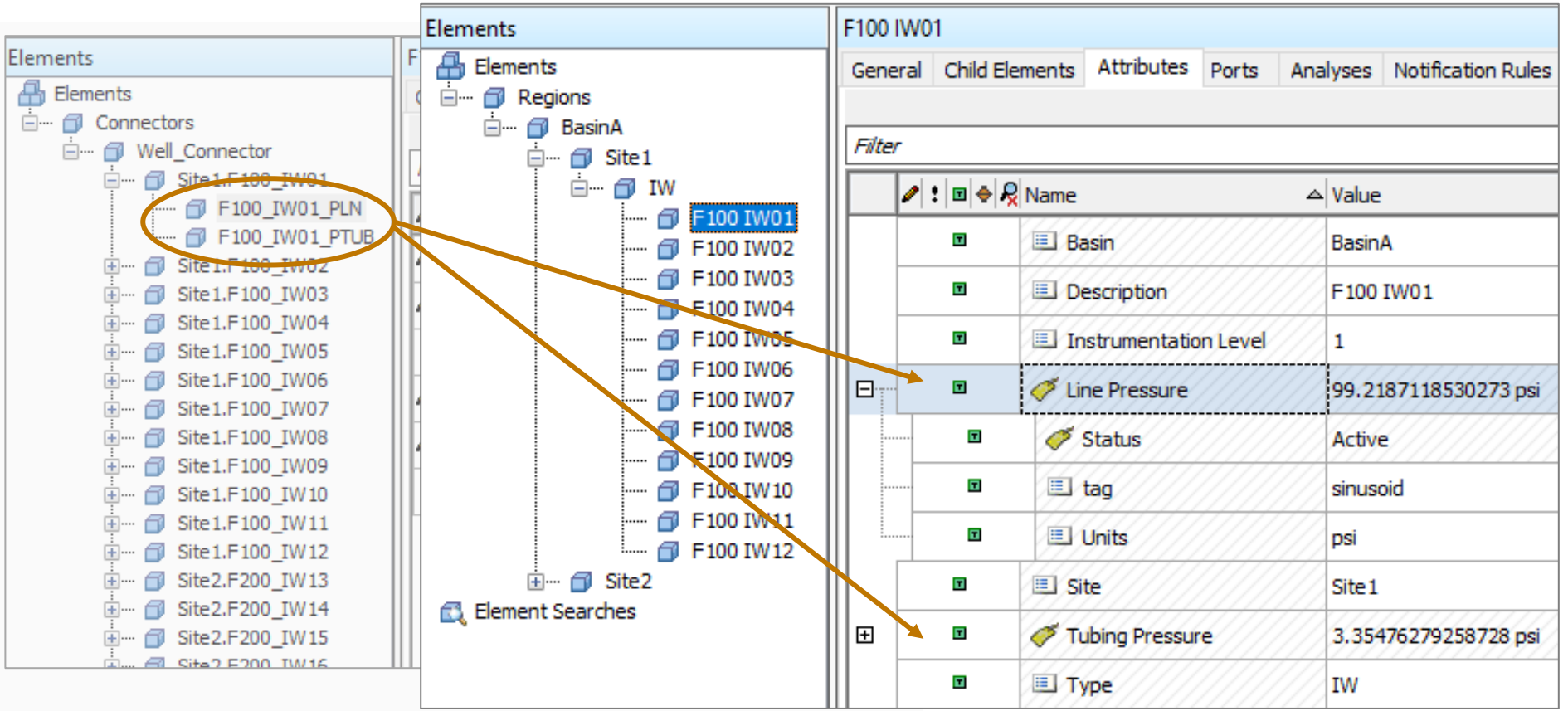
AF Transformer demo



Multiple models from one. Equipment by reference.



Sensor-based source model transformed



Roadmap for the AF Transformer

- First release 4Q 2017 – with limited distribution
  - Runs manually or as Windows scheduled task
  - Transforms defined using XML script
  - Examples included
- Second release 2018 – general availability
  - Runs as service and updates automatically

Enterprise Asset Management

Improved enterprise deployment of the PI System

*We need a **reliable and effective process** to seamlessly **promote and replicate** operational assets and data, so that **process models and best practices** are shared throughout the enterprise.*

What approach do you use to organize your PI data today?

Only tag naming convention

Tag name and some PI AF structure

All PI AF structure

Other meta data system

None of the above/don't know

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ther type of contextual systems help you organize your Operationa

erprise Asset Management Systems (SAP PI, Maximo, etc.)

Control Systems/DCS

None

Other

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m what you saw today, how likely are you to use the AF Transform

y likely. How can I start now?

Likely, I need to plan a few use cases

Not likely. Maybe in the future

I do not expect to e a tool like that

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hat use cases for AF Transformer apply to you and your organizatio

PI Connector reference models to fit into my AF model

A site or plant model so it fits the corporate standard

Corporate standard model to something usable by the site or plant

A shape usable by certain business applications (like OEE or CBM)

A shape usable by specific group of users

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uld be the most helpful to enable an enterprise wide asset based P

e efficient way to maintain your asset models (keeping things in sync with the real world)

Migration of existing analytics/displays to an asset based system

Access to qualified resource the do the work

An automated way to find similarities across assets

Other

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s the most compelling reason for you to adopt an asset-based PI Sy

ake the PI System more manageable/scalable for Operations (plant engineers)

Make the data more accessible to the rest of the business

Help solve a specific operational objective (OEE, CBM, Predictive Maint., etc)

Allow the data to be more easily consumed by other business systems (big data project, SAP, etc.)

Other

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ld you define success for implementing an asset based PI System i
1-2 years?

Project based asset models to support specific operations or business objectives

Developed sufficient expertise to build and maintain process models

Comprehensive asset based models for operations

Multiple models to solve operations and business problems

I don't know

Other

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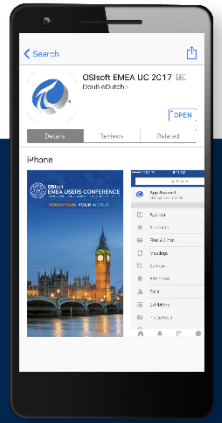
Questions

Please wait for the **microphone** before asking your questions

State your **name & company**

Please remember to…

Complete the Online Survey for this session



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감사합니다

Danke

谢谢

Merci

Gracias

Thank You

ありがとう

Спасибо

Obrigado